



**RDL**<sup>®</sup>  
Radio Design Labs

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

## TWISTED PAIR

### Models FP-TP4PW, RU-TP4PW, TX-TP1PW Twisted Pair Power Inserter



#### All Power Inseters

- Power Remote Senders and Receivers from a Convenient Location
- 24 Vdc Input on dc Power Jack or Terminal Block
- Blue Power LED Shows Module is Receiving Power
- Green LEDs Indicate Correct dc Output Voltage on RJ45 Jacks
- Two Associated RJ45s Provided for Each Power Output
- Each Pair of RJ45 Jacks may be Inserted in a Twisted Pair Cable that Powers Senders and Receivers
- Power Feeding Each Pair of RJ45 Jacks is Separately Fused for Wiring Fault Protection
- Power Fusing Circuits Reset Automatically Upon Module Re-Powering After Wiring Fault is Cleared

#### FP-TP4PW

- Power Bus Provides Expansion to Adjacent Power Inseters
- Mounts to Any Flat Surface or Rack-Mounts with Available FLAT-PAK™ Mounting Accessories

#### RU-TP4PW

- Detachable Terminal Block Provided for Input Power
- Inserts Power into Four Twisted Pair Cables
- Rack-Mounts with Available RACK-UP Mounting Accessories

#### TX-TP1PW

- Detachable Terminal Block Provided for Input Power
- Inserts Power into a Single Twisted Pair Cable
- Mounts in a Wide Variety of Convenient Locations

**APPLICATION:** The FP-TP4PW, RU-TP4PW and TX-TP1PW are power inserters compatible with RDL twisted pair products. Each is powered from a 24 Vdc power supply using either a power jack or the terminal block. Power jacks are provided at each end of the FP-TP4PW to facilitate chaining multiple modules from a single power supply. Dual-RJ45 jack sets are provided to connect remote twisted pair senders and receivers. Power is provided to all modules connected to the RJ45 jacks. Signal pairs feed through the associated RJ45s. The voltage feeding each dual-RJ45 jack set is separately protected by an automatically resetting fuse. A power LED is associated with each dual-RJ45 jack set, facilitating identification of wiring faults. Module power is indicated by a front-panel LED.

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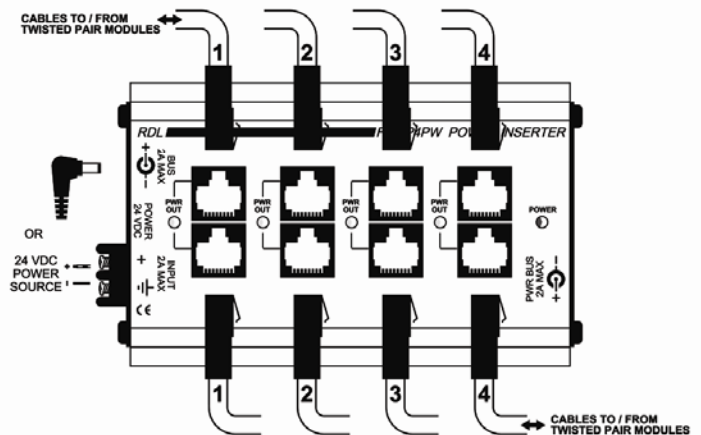
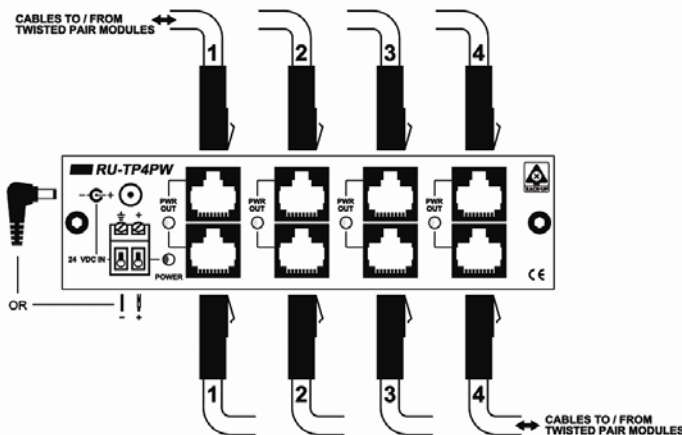
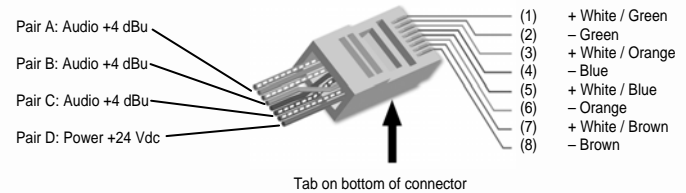
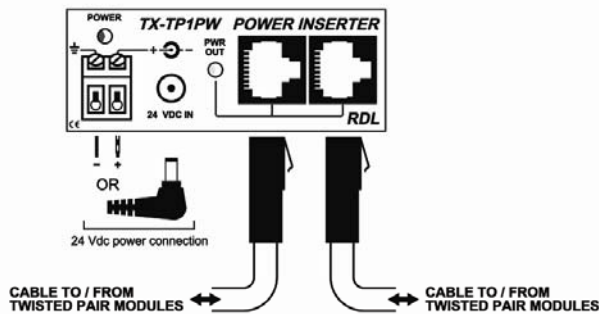
### Twisted Pair Power Inserters

## Installation/Operation



EN55103-1 E1-E5; EN55103-2 E1-E4  
Typical Performance reflects product at publication time exclusive of EMC data, if any, supplied with product. Specifications are subject to change without notice.

Each **PWR OUT** LED indicates that power is present on the jack. If an LED is not illuminated, remove the associated output connector(s), repair the wiring fault, and remove power from the module for 10 seconds. Re-power the module and note the LED is illuminated. Reconnect the twisted pair cable(s); if the LED remains on, the wiring fault has been successfully cleared.



### TYPICAL PERFORMANCE:

#### FP-TP4PW

Outputs (4): Dual-RJ45  
Indicators (5): Power In (1); Power Out (4)  
Power Connections (3): Power Jack (2); Terminal Block  
Power Requirement: 24 Vdc @ 25 mA plus connected loads  
Maximum Load Current: 200 mA (each RJ45 output)  
Dimensions: 5.65" (13.56 cm) W; 3.25" (8.26 cm) H; 1.11" (2.67 cm) D

#### RU-TP4PW

Outputs (4): Dual-RJ45  
Indicators (5): Power In (1); Power Out (4)  
Power Connections (2): Power Jack; Detachable Terminal Block  
Power Requirement: 24 Vdc @ 25 mA plus connected loads  
Maximum Load Current: 200 mA (each RJ45 output)  
Dimensions: 5.8" (15 cm) W; 1.7" (4.3 cm) H; 2.2" (5.59 cm) D

#### TX-TP1PW

Output: Dual-RJ45  
Indicators (2): Power In; Power Out  
Power Connections (2): Power Jack; Detachable Terminal Block  
Power Requirement: 24 Vdc @ 20 mA plus connected loads  
Maximum Load Current: 200 mA (each RJ45 output)  
Dimensions: 3.0" (7.6 cm) W; 1.2" (3.0 cm) H; 1.4" (3.6 cm) D